

HEPATITIS A IN NEVADA, 2003-2012

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Edition 1.0

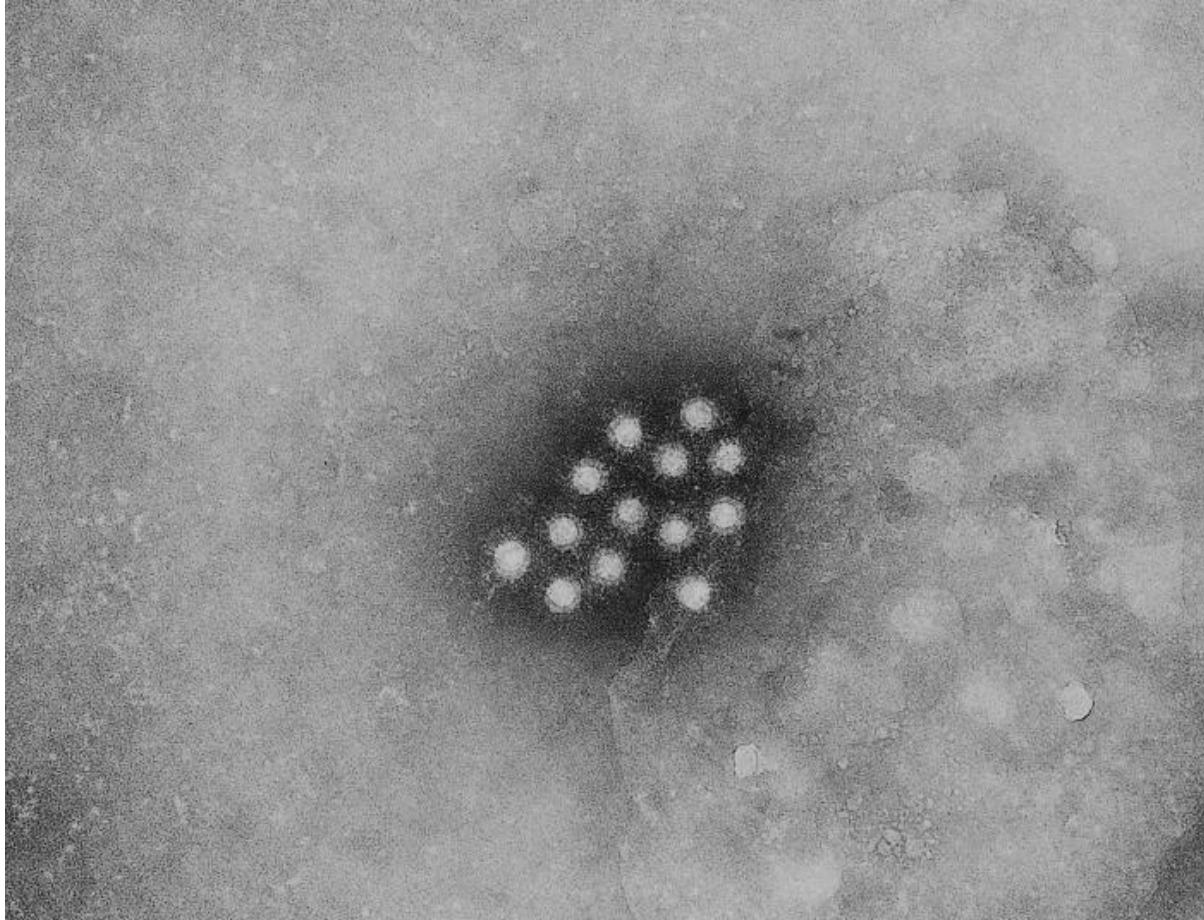


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Purpose

The purpose of this report is to provide a general overview of the incidence and trends of hepatitis A among Nevada residents. The report also includes Healthy People 2010 objectives, Healthy People 2020 objectives, and Nevada data collected from cases of hepatitis A from 2003 to 2012. Hepatitis A is listed as one of Nevada's reportable diseases pursuant to [NRS 441A](#) (1). Hepatitis A reporting is further regulated by [NAC 441A.560](#) (2).

Hepatitis A

The term hepatitis means inflammation of the liver. Hepatitis A is a liver disease caused by the hepatitis A virus. Unlike hepatitis B and C, hepatitis A only presents as an acute infection and does not become chronic. Rates of hepatitis A have been decreasing in the United States and are the lowest they have been in 40 years. It was estimated that there were 25,000 new hepatitis A infections in 2007 in the United States, but the number officially reported is typically much lower because infected persons often never have symptoms and so case reports are not generated for public health officials to record (3).

Hepatitis A is spread through a fecal-to-oral mode of transmission; the virus enters the mouth through contact with objects, food, or drinks contaminated by the feces of an infected individual. It may be spread through person-to-person contact when an infected person does not wash their hands properly after going to the bathroom and then touches other objects or food, when a parent or caregiver does not properly wash their hands after changing diapers or cleaning up the stool of an infected person, or through sexual contact with an infected person. Hepatitis A may also be spread through contaminated food and water; fruits, vegetables, shellfish, ice, and water are the foods and drinks most likely to be contaminated. In the United States, chlorination kills the hepatitis A virus in the public water supply. Transmission of the virus through contaminated food and water is more likely in countries where hepatitis A is common and in areas with poor sanitary conditions or poor personal hygiene (3).

Infected individuals may be asymptomatic, and children are less likely to have symptoms than adults. When symptoms are present, the infected person may exhibit fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, clay-colored bowel movements, joint pain, or jaundice. Symptoms usually appear between 2 to 6 weeks after exposure and typically last less than 2 months, though some may be sick for up to 6 months. Hepatitis A can still be transmitted if no symptoms are present. Most persons with hepatitis A fully recover with no long-term liver damage. Rarely, it can lead to liver failure and death, which is more common in persons 50 years of age and older and those with other liver diseases (3).

To diagnose hepatitis A infection, a blood sample is collected for laboratory testing. There is no specific treatment for hepatitis A. Adequate rest, nutrition, and fluids are typically recommended. If an individual has been exposed to the hepatitis A virus, they may receive a shot of immune globulin which contains antibodies that provide short-term protection against infection (3).

According to the Centers for Disease Control and Prevention (CDC), the following groups of people are at higher risk of hepatitis A infection: those who travel or live in countries where Hepatitis is common, men who have sex with men, illegal drug users, those who have clotting-factor disorders such as hemophilia, those who live with someone who has hepatitis A, and those who have oral-anal sexual contact with an infected person. Protection from hepatitis A infection is available through a vaccine. It is believed the vaccine is largely responsible for the decline of hepatitis A infections in the United States. The vaccination is recommended for all children at 1 year of age, travelers to certain countries, and people at high risk of infection. Frequent hand washing after using the bathroom, changing a diaper, or before preparing food can help prevent spreading or acquiring hepatitis A. When travelling to areas where hepatitis A is prevalent, the risk of infection can be reduced by only drinking purified or bottled water and beverages, and by not eating uncooked shellfish or uncooked fruits or vegetables that have been peeled or prepared by someone else (3).

Summary

From 2003 to 2012, the annual number of reported hepatitis A cases in Nevada ranged from a low of 5 cases in 2011 to a high of 50 cases in 2003. Over the ten years, a total of 168 cases were reported. The annual crude incidence rate of hepatitis A ranged from a low of 0.2 cases per 100,000 population in 2011 to a high of 2.2 cases per 100,000 population in 2003. A statistically significant decrease in crude incidence rate was seen between 2003 and 2004 (2.2 and 0.7 cases per 100,000 population, respectively). No other years showed a significant change from the year prior. The overall crude incidence rate from 2003 to 2012 was 0.7 cases per 100,000 population.

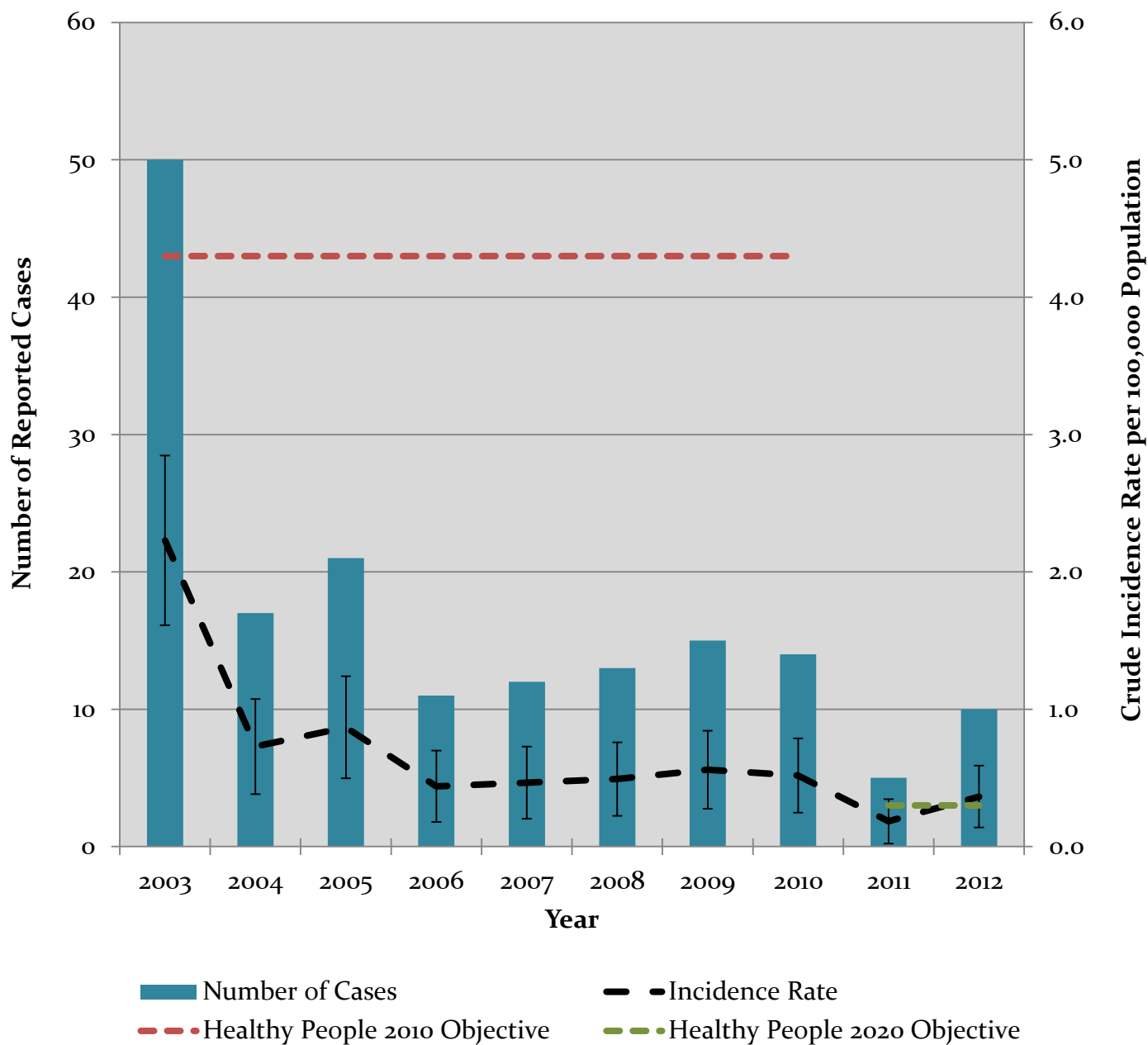
From 2003 to 2010, Nevada's crude incidence rates for hepatitis A were significantly lower than the Healthy People 2010 objective (objective: 4.3 new symptomatic cases per 100,000 population) (4). For 2011 and 2012, Nevada was neither significantly higher nor lower than the Healthy People 2020 objective (objective: 0.3 new symptomatic cases per 100,000 population) (5).

From 2003 to 2012, the age-adjusted incidence rate of the Washoe County Health District (1.4 cases per 100,000 population) was significantly higher than the rates for the entire state, Southern Nevada Health District, and Carson City Health and Human Services (0.7, 0.5, and 0.5 cases per 100,000 population, respectively). There were no other significant differences between the overall state rate and the health districts or between health districts.

Between 2008 and 2012 (years for which monthly data is available), there was no discernable monthly or seasonal trend for reported hepatitis A cases. The number of reported cases ranged between 0 and 4 cases per month, depending on the year.

From 2003 to 2012, adults aged 25-39 years and 40-64 years had the highest total case counts for hepatitis A (43 and 48 cases, respectively), but there were no significant differences in crude incidence rates for hepatitis A between age groups. Over the ten years, there were no reported cases for infants under 1 year of age; rates for infants and children less than 5 years of age were not calculated due to low case counts.

Figure 1. Number of Reported Cases and Crude Incidence Rates of Hepatitis A in Nevada Compared to Healthy People Objectives: 2003-2012



The crude incidence rate in Nevada from 2003 to 2012 was 0.7 cases per 100,000 population.

Figure 2. Age-Adjusted Incidence Rates of Hepatitis A in Nevada and Nevada Health Districts: 2003-2012

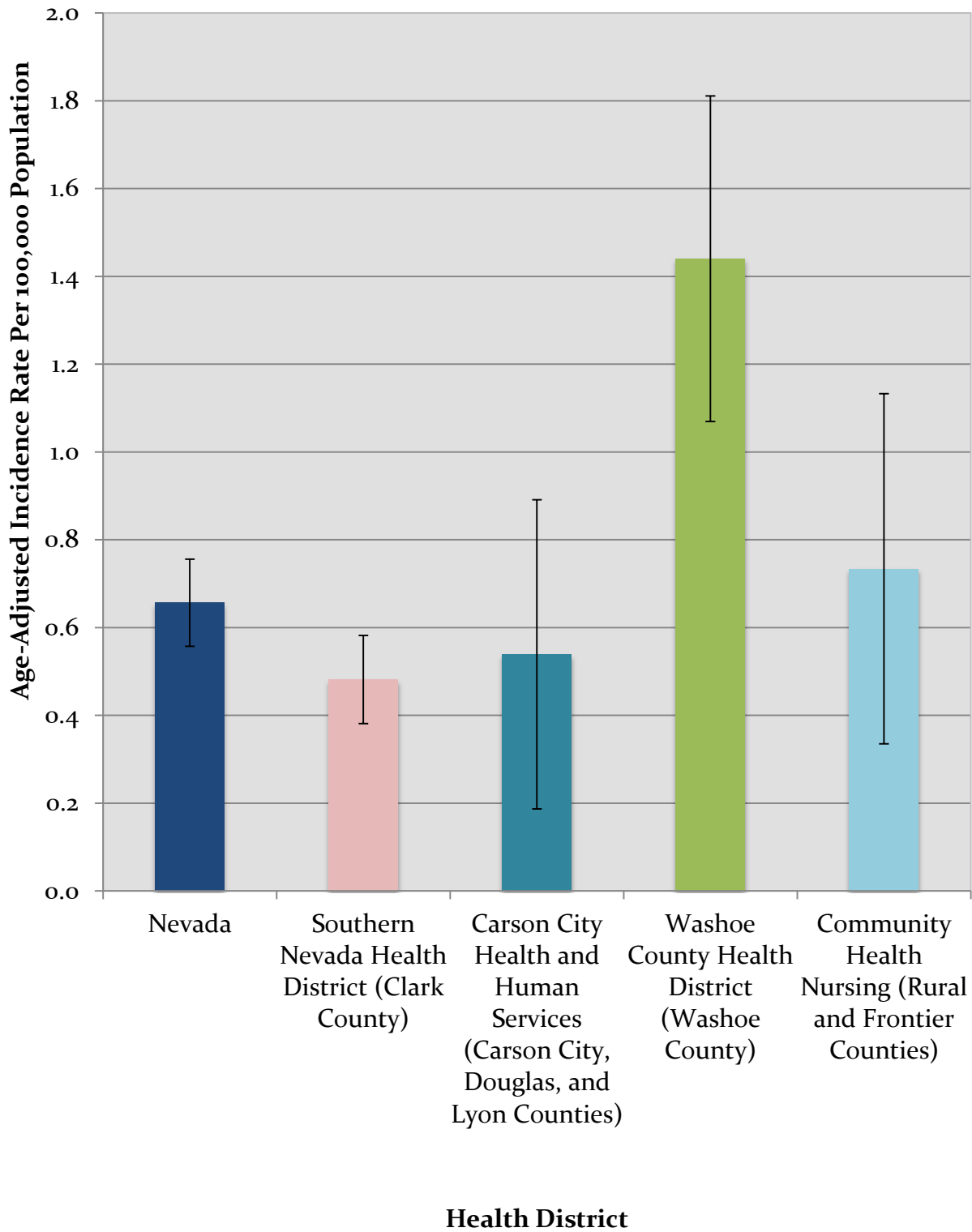


Figure 3. Number of Hepatitis A Cases Reported in Nevada by Month: 2008-2012

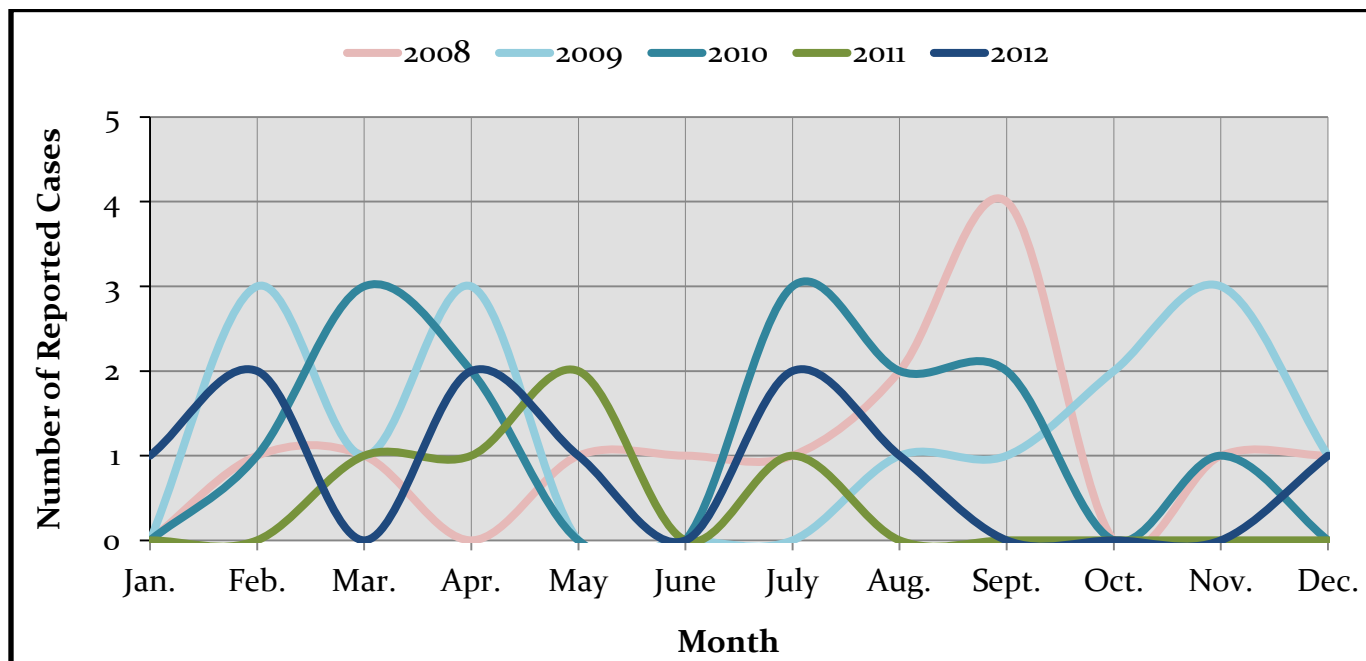
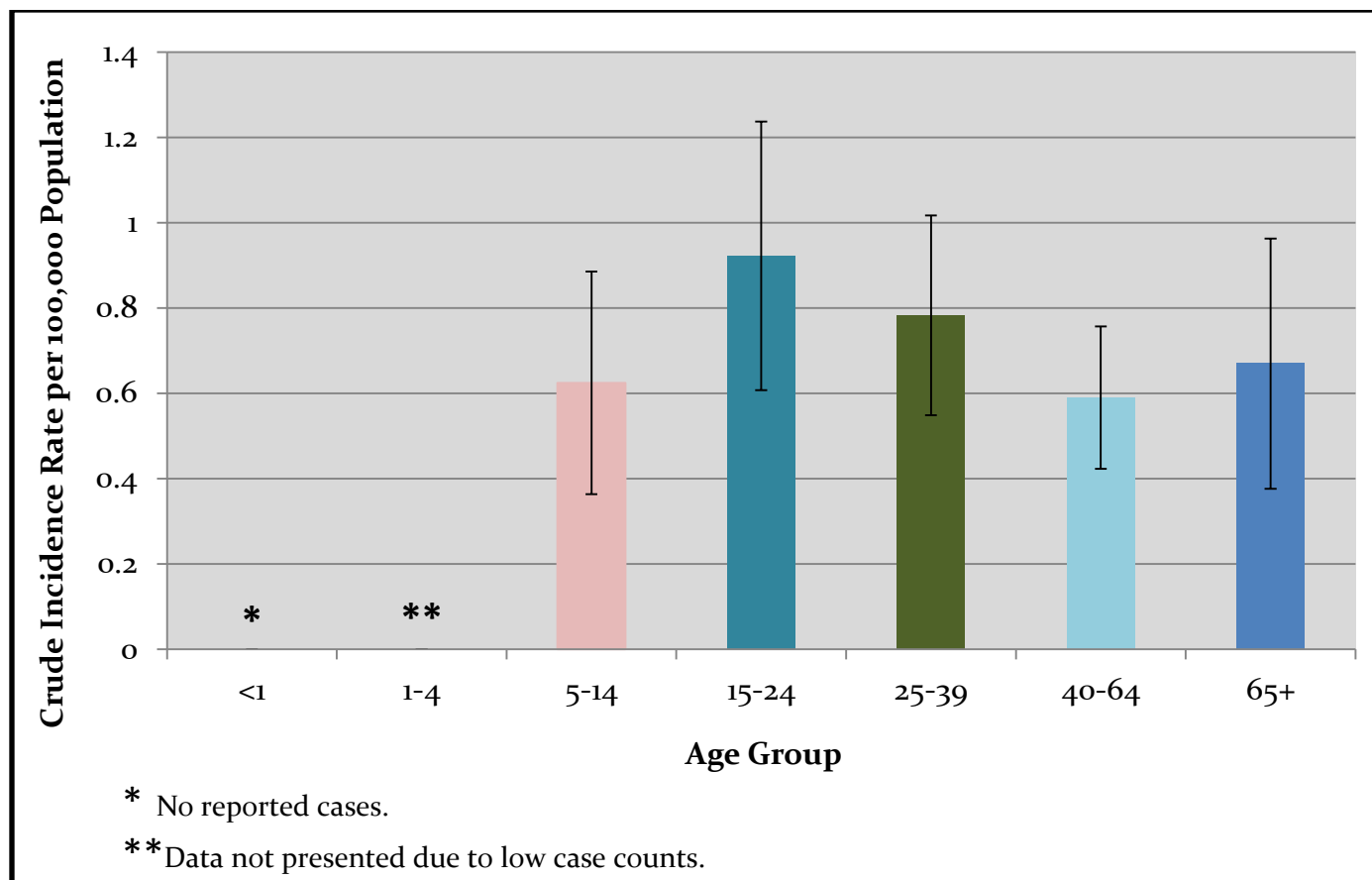


Figure 4. Crude Incidence Rates of Hepatitis A in Nevada by Age Group: 2003-2012



Technical Notes

All Nevada data from 2003 to 2012 came from reported cases of hepatitis A among Nevada residents (6, 7). The CDC and Council of State and Territorial Epidemiologists case definition of hepatitis A encompasses all cases classified as confirmed; all cases of hepatitis A used for this report follow this definition (8). Population estimates were obtained from Nevada State Demographer's Office (9). Age-adjusted rates per 100,000 population were calculated using the 2000 U.S. standard population. Sufficient case counts were not available to obtain age-adjusted incidence rates for racial/ethnic groups; therefore, racial/ethnic distributions of incidence are not presented in this report. When used for rates, error bars represent 95% confidence intervals. The Keyfitz method was used to calculate confidence intervals of age-adjusted rates (10). Due to their inherent unreliability, rates were not calculated for case counts lower than five.

Sources

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